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Docket No. SPO-115C1
Serial No. 09/888,035In the Claims:

This listing of claims replaces all prior versions and listing of claims in the application:

1. (Previously presented) An isolated DNA selected from the group consisting of:
 - (a) a DNA encoding a protein comprising the amino acid sequence described in SEQ ID NO.: 2; and
 - (b) a DNA comprising the coding region of the nucleotide sequence described in SEQ ID NO.: 1.
2. (Currently amended) An isolated DNA encoding a protein having an Na⁺/H⁺ antiporter activity obtained from a monocotyledonous plant selected from the group consisting of:
 - (a) a DNA encoding a protein comprising the amino acid sequence described in SEQ ID NO.: 2, wherein the number of amino acids that are substituted, deleted, inserted and/or added is 20 or less; and
 - (b) a DNA specifically hybridizing under highly stringent conditions to the DNA consisting of the nucleotide sequence described in SEQ ID NO.: 1, wherein highly stringent conditions comprise washing at 56 °C in a wash solution containing 0.1X SSC and 0.1% SDS.
3. (Previously presented) The isolated DNA of claim 2, wherein the monocotyledonous plant belongs to the *Gramineae* family.
4. (Previously presented) A vector comprising DNA selected from the group consisting of:
 - (a) a DNA encoding a protein comprising the amino acid sequence described in SEQ ID NO.: 2; and
 - (b) a DNA comprising the coding region of the nucleotide sequence described in SEQ ID NO.: 1.

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5. (Currently amended) A vector comprising a DNA encoding a protein having an Na⁺/H⁺ antiporter activity obtained from a monocotyledonous plant selected from the group consisting of:
- (a) a DNA encoding a protein comprising the amino acid sequence described in SEQ ID NO.: 2, wherein the number of amino acids that are substituted, deleted, inserted and/or added is 20 or less; and
 - (b) a DNA specifically hybridizing under highly stringent conditions to the DNA comprising the nucleotide sequence described in SEQ ID NO.:1, wherein highly stringent conditions comprise washing at 56 °C in a wash solution containing 0.1X SSC and 0.1% SDS.
6. (Previously presented) A transformant cell transformed with a DNA selected from the group consisting of:
- (a) a DNA encoding a protein comprising the amino acid sequence described in SEQ ID NO.: 2; and
 - (b) a DNA comprising the coding region of the nucleotide sequence described in SEQ ID NO.: 1.
7. (Previously presented) The transformant cell of claim 6, wherein the cell is a plant cell.
8. (Currently amended): A transformant cell transformed with a DNA encoding a protein having an Na⁺/H⁺ antiporter activity obtained from a monocotyledonous plant selected from the group comprising:
- (a) DNA encoding a protein consisting of the amino acid sequence described in SEQ ID NO.: 2, wherein the number of amino acids that are substituted, deleted, inserted and/or added is 20 or less; and
 - (b) a DNA specifically hybridizing under highly stringent conditions to the DNA comprising the nucleotide sequence described in SEQ ID NO.:1, wherein highly

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stringent conditions comprise washing at 56 °C in a wash solution containing 0.1X SSC and 0.1% SDS.

9. (Original) The transformant cell of claim 8, wherein the cell is a plant cell.
10. (Canceled).
11. (Canceled).
12. (Canceled).
13. (Canceled).
14. (Previously presented): A transformant plant comprising a transformant cell transformed with a DNA selected from the group consisting of:
 - (a) a DNA encoding a protein comprising the amino acid sequence described in SEQ ID NO.: 2; and
 - (b) a DNA comprising the coding region of the nucleotide sequence described in SEQ ID NO.: 1.
15. (Original) The transformant plant of claim 14, wherein the plant is a monocotyledon.
16. (Original) The transformant plant of claim 15, wherein the monocotyledon belongs to the *Gramineae* family.
17. (Original) The transformant plant of claim 16, wherein the plant is rice.

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18. (Currently amended) A transformant plant ~~that it~~ that is the offspring or clone of a transformant plant comprising a transformant cell transformed with a DNA selected from the group consisting of:

(a) a DNA encoding a protein comprising the amino acid sequence described in SEQ ID NO.: 2; and

(b) a DNA comprising the coding region of the nucleotide sequence described in SEQ ID NO.: 1;

wherein said ~~transformant plant~~ offspring or clone carries said DNA.

19. (Currently amended) A transformant plant comprising a transformant cell transformed with a DNA encoding a protein having an Na⁺/H⁺ antiporter activity obtained from a monocotyledonous plant selected from the group consisting of:

(a) a DNA encoding a protein consisting of the amino acid sequence described in SEQ ID NO.: 2, wherein the number of amino acids that are substituted, deleted, inserted and/or added is 20 or less; and

(b) a DNA specifically hybridizing under highly stringent conditions to the DNA comprising the nucleotide sequence described in SEQ ID NO.:1, wherein highly stringent conditions comprise washing at 56 °C in a wash solution containing 0.1X SSC and 0.1% SDS.

20. (Original) The transformant plant of claim 19, wherein the plant is a monocotyledon.

21. (Original) The transformant plant of claim 20, wherein the monocotyledon belongs to the *Gramineae* family.

22. (Original) The transformant plant of claim 21, wherein the plant is rice.

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23. (Currently amended) A transformant plant ~~that it~~ that is the offspring or clone of a transformant plant comprising the transformant cell transformed with a DNA encoding a protein having an Na⁺/H⁺ antiporter activity obtained from a monocotyledonous plant selected from the group consisting of:

- (a) a DNA encoding a protein comprising the amino acid sequence described in SEQ ID NO.: 2, wherein the number of amino acids that are substituted, deleted, inserted and/or added is 20 or less; and
- (b) a DNA specifically hybridizing under highly stringent conditions to the DNA comprising the nucleotide sequence described in SEQ ID NO.:1, wherein highly stringent conditions comprise washing at 56 °C in a wash solution containing 0.1X SSC and 0.1% SDS, ~~and;~~

wherein said ~~transformant plant~~ offspring or clone carries said DNA.

24. (Previously presented) A material for the breeding of a transformant plant comprising a transformant cell transformed with a DNA selected from the group consisting of:

- (a) a DNA encoding a protein comprising the amino acid sequence described in SEQ ID NO.: 2; and
- (b) a DNA comprising the coding region of the nucleotide sequence described in SEQ ID NO.: 1.

25. (Currently amended) A material for the breeding of a transformant plant comprising a transformant cell transformed with a DNA encoding a protein having an Na⁺/H⁺ antiporter activity obtained from a monocotyledonous plant selected from the group consisting of:

- (a) a DNA encoding a protein consisting of the amino acid sequence described in SEQ ID NO.: 2, wherein the number of amino acids that are substituted, deleted, inserted and/or added is 20 or less; and
- (b) a DNA specifically hybridizing under highly stringent conditions to the DNA comprising the nucleotide sequence described in SEQ ID NO.:1, wherein highly

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stringent conditions comprise washing at 56 °C in a wash solution containing 0.1X
SSC and 0.1% SDS.

26. (Canceled).

27. (Canceled).

28. (Currently amended) An isolated nucleic acid molecule having a chain length of at least 15
nucleotides that is ~~96% or more homologous~~ identical to an at least 15-nucleotide fragment of the
DNA described in SEQ ID NO.: 1.

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